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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,084	02/26/2004	Kensuke Matsui	K-2150	3525

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EXAMINER	
JOYNER, KEVIN	
ART UNIT	PAPER NUMBER
1797	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/786,084	MATSUI, KENSUKE	
	Examiner	Art Unit	
	KEVIN C. JOYNER	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 May 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) *1-10 and 16-32* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *11-15 and 33-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

FINAL ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 11-15, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koppelman (U.S. Patent No. 4,728,339) in view of Lewis (U.S. Patent No. 4,453,474).

Koppelman discloses an apparatus capable of producing compost material comprising:

A vessel having an inlet 24 for organic waste and an outlet 88 for the organic waste treated with heat as the compost material;

Heating means capable of heating and drying the material within the vessel (column 6, lines 5-12) at a temperature of 100-200˚C, the heating means having a plurality of heating panels 82 arranged vertically, each heating panel having a hollow portion inside thereof (Figure 3; column 7, lines 55-68), and heating fluid provided in the hollow portion (column 7, lines 1-5),

Rakes 48 provided at the each heating panel for moving the material so that the material falls in a stepwise fashion from the inlet to the outlet through the heating panels (column 5, lines 30-55; column 6, lines 45-55),

Temperature controlling means that is capable of controlling the temperature of the compost material to be treated at 100-200˚C (column 5, lines 10-15; column 10, lines 20-35), and

Wherein the organic waste is capable of being continuously fed through the inlet and the material treated with heat is continuously discharged through said outlet. More specifically, the apparatus of Koppelman is fully capable of operating at a continuous manner and provides a heating means that is controlled at approximately 200-500˚F. Thus, the apparatus is capable of heating and drying a material at a range of 100-200˚C in a continuous manner. Furthermore, Koppelman specifically discloses that the moving speed is controlled within said vessel to achieve thermal upgrading (column 10, lines 22-25). This is completed by speeding up/slowing down the speed of the rakes, which is disclosed in column 5, lines 10-15, that moves the material through said vessel faster or slower. Therefore, the variable speed motor is a control means for controlling the temperature of the material in the vessel.

Although Koppelman discloses that the temperature is controlled in various areas throughout the reference (column 2, lines 49-56), Koppelman does not appear to specifically disclose a temperature detector to monitor the temperature within the vessel. Lewis discloses an apparatus capable of producing a compost material comprising a vessel with a heating means and rakes as shown in Figure 2 (column 4, lines 47-60). The reference continues to disclose that the heating of the material is controlled by a temperature detector 59 provided in the vessel that is capable of detecting the temperature of a compost material, and a temperature controlling means

56a that is capable of controlling the temperature of the compost material to be treated at 100-200˚C (column 11, lines 26-50; column 12, lines 5-34; column 15, lines 47-57). Furthermore, Lewis continues to disclose that the temperature controlling means is a means for controlling the feeding speed of said material and the heating temperature of said heating means (concerning claims 12 and 14; column 5, lines 44-51; column 7, lines 35-50). The detector and control means is provided in order to accurately and effectively monitor and control the temperature within the vessel. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Koppelman to include a temperature detector provided in the vessel that is capable of detecting the temperature of a compost material, and a control means that is capable of controlling the feed of the material to be treated in order to accurately and effectively monitor and control the temperature within the vessel as exemplified by Lewis. Concerning claim 13, as disclosed above, the variable speed motor of Koppelman is a temperature control means that controls the moving speed of the material within said vessel. Concerning claim 14, Koppelman also discloses that the heating temperature of said heating means is controlled by a control means (column 10, lines 20-22). Regarding claim 15, both the control of Koppelman and Lewis are fully capable of controlling the controlling means such that said temperature measured by said temperature detector becomes 110-200˚C. Concerning the claims regarding limitations of the functionality of the controlling means, it is noted that the Applicant's attention is directed to MPEP 2114 [R-1] wherein the manual recites, "While features of an apparatus may be recited either structurally or functionally, claims directed to an

apparatus must be distinguished from the prior art in terms of structure rather than function."

Concerning claim 33, Koppelman continues to disclose that the apparatus comprises a rotary shaft 34 provided with the rakes 48, and a motor 52 for rotating the rotary shaft and the rakes (column 5, lines 8-15). Concerning claim 34, the reference also discloses that the heating panels further comprise disk shape heating panels and ring shape heating panels arranged alternately vertically, wherein the disk shape heating panels form gaps between the disk shape heating panels and an inner surface of the vessel, and the ring shape heating panels have center openings so that the materials alternately fall through the gaps and center openings (column 5, lines 37-55; column 6, lines 40-50; Figure 1).

3. Claims 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koppelman (U.S. Patent No. 4,728,339) in view of Lewis (U.S. Patent No. 4,453,474) as applied to claim 34 above, and further in view of Koppelman (U.S. Patent No. 5,290,523).

Koppelman (herein referred to as '339) in view of Lewis is relied upon as set forth in reference to claim 34 above. '339 does not appear to disclose that the fluid is an oil, and the oil is heated by an oil heating device, wherein said oil downwardly circulates among the heating panels through the each hollow portion. Koppelman (herein referred to as '523) discloses an apparatus capable of producing a compost material comprising a vessel, a heating means and rakes to move the material from an inlet of the vessel to an outlet of the vessel as shown in Figure 3. The reference continues to disclose

heating panels 122 having a hollow portion inside thereof, and heating oil (column 3, lines 67-68) that is heated by an oil heating device (column 6, lines 35-40), and provided in the hollow portion, wherein said oil downwardly circulates among the heating panels through each hollow portion (column 2, lines 5-35; column 6, lines 40-55). The heating means is provided in order to produce a means that is simple to control, efficient in the utilization of heat energy, and economical for operation (column 1, lines 35-40). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of '339 with an oil fluid that is heated by an oil heating device, wherein said oil downwardly circulates among the heating panels through the each hollow portion in order to produce a means that is simple to control, efficient in the utilization of heat energy, and economical for operation as exemplified by '523. Regarding claim 37, the temperature detector of Lewis is situated in the vicinity of the outlet. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Koppelman to include a temperature detector provided in the vessel in the vicinity of the outlet that is capable of detecting the temperature of a compost material in order to accurately and effectively monitor and control the temperature within the vessel as exemplified by Lewis.

Response to Arguments

4. Applicant's arguments with respect to claims 11-15 and 33-37 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN C. JOYNER whose telephone number is (571)272-2709. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elizabeth L McKane/
Primary Examiner, Art Unit 1797

KCJ